

WHAT IS CLAIMED IS:

1. An optical path-changing connector for optical connection to a first external component having a positioned member, said external component being provided with optical waveguides or optoelectronic converting elements arranged one-dimensionally or two-dimensionally, said optical path-changing connector comprising:

an optical path-changing device comprising:

a cladding having a first face, a second face, and at least one mirror surface; and

a plurality of cores each having a first core end surface exposed at said first face and a second core end surface exposed at said second face, each said core constituting a continuous optical path extending from said first core end surface to said mirror surface, being changed in direction at said mirror surface, and extending to said second core end surface, wherein said first core end surfaces and said second core end surfaces are arranged one-dimensionally or two-dimensionally at said first face and said second face, respectively; and

a first positioning member positionally adjusted relative to optical axes of said first core end surfaces for positioning said first external component relative to said first core end surfaces by engaging with said positioned member.

2. The optical path-changing connector according to Claim 1, further comprising an exterior casing member for accommodating said optical path-changing device, wherein said optical path-changing device is accommodated in and fixed to said exterior casing member such that optical axes in said optical path-changing device are positionally adjusted and said first and second faces are exposed.

3. The optical path-changing connector according to Claim 2, wherein said exterior casing member is constructed so as to be divided into a plurality of exterior casing member divisions.

4. The optical path-changing connector according to Claim 3, wherein an engaging portion is formed on at least one of said exterior casing member divisions and a receiving portion is formed on said optical path-changing device, said optical path-changing device being constructed such that optical axes therein are positionally adjusted by engagement between said engaging portion and said receiving portion.

5. The optical path-changing connector according to Claim 2, wherein an optical path-changing device insertion aperture is disposed through said exterior casing member, said optical path-changing device being inserted into said optical path-changing device insertion aperture and fixed to said optical path-changing device insertion aperture such that said first and second faces are exposed and optical axes in said optical path-changing device are positionally adjusted.

6. The optical path-changing connector according to Claim 2, wherein said first positioning member is formed on said exterior casing member.

7. The optical path-changing connector according to Claim 6, further comprising a second positioning member positionally adjusted relative to optical axes of said second core end surfaces, wherein a second external component provided with optical waveguides or optoelectronic converting elements arranged one-dimensionally or two-dimensionally is constructed so as to be optically connected to said second core end surfaces by means of

said second positioning member.

8. The optical path-changing connector according to Claim 7, wherein said second positioning member is formed on said exterior casing member.

9. The optical path-changing connector according to Claim 7, further comprising an elastic fastening member for elastically fastening said second external component in an optically connected state.

10. The optical path-changing connector according to Claim 1, wherein said first positioning member is formed on said first face of said optical path-changing device.

11. The optical path-changing connector according to Claim 10, further comprising a second positioning member positionally adjusted relative to optical axes of said second core end surfaces, wherein a second external component provided with optical waveguides or optoelectronic converting elements arranged one-dimensionally or two-dimensionally is constructed so as to be optically connected to said second core end surfaces by means of said second positioning member.

12. The optical path-changing connector according to Claim 11, wherein said second positioning member is formed on said on said second face of said optical path-changing device.

13. The optical path-changing connector according to Claim 11 further comprising an elastic fastening member for elastically fastening said second external component in an optically connected state.

14. The optical path-changing connector according to Claim 1, wherein a second external component provided with optical waveguides or optoelectronic converting elements arranged one-dimensionally or two-dimensionally is mounted to said second face of said optical path-changing device so as to be positionally adjusted relative to optical axes in said optical path-changing device.

15. The optical path-changing connector according to Claim 1, wherein a microlens is fixed to at least one of said first and second faces.

16. The optical path-changing connector according to Claim 1, further comprising a mounting seat for fastening.

17. The optical path-changing connector according to Claim 1, further comprising an elastic fastening member for elastically fastening said first external component in an optically connected state.